REMARKS

Claims 1-18 are pending in the present Application. Claim 18 has been added and support for such claim can be found in Figure 5 of the current application as well as page 13, lines 4-7.

REMARKS REGARDING 35 U.S.C. § 103:

The Examiner rejected claim 16 is rejected under 35 USC §103(a) as being unpatentable over **Lesieur** (US 6,620,389). Applicants respectfully traverse this rejection.

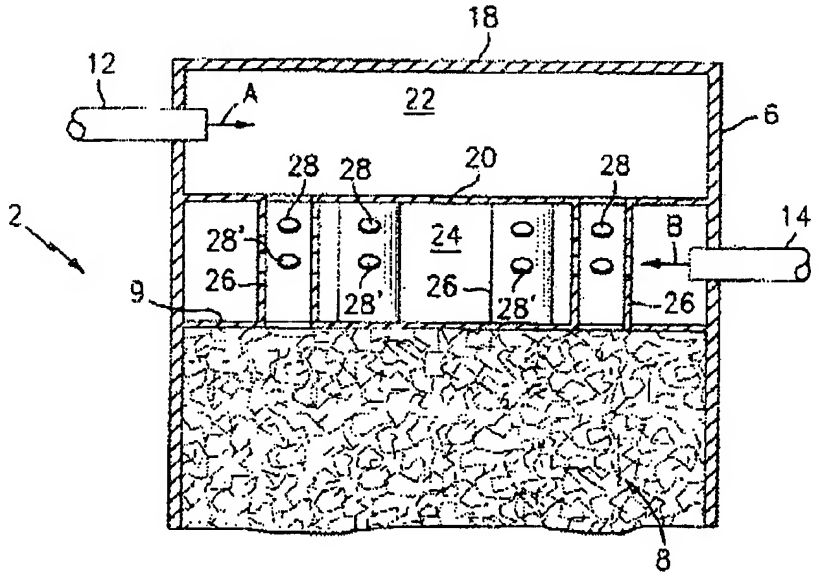
The Examiner alleges that **Lesieur** discloses a converter for a catalytic conversion of liquid fuel. The Examiner alleges that although **Lesieur** fails to disclose that the catalytic converter is for removing oxides of nitrogen gas, the reference discloses a reducing agent which is injected into the catalytic converter. The Examiner concludes from this that it would have been obvious for one of ordinary skill in the art to have the reducing agent injected into a catalytic converter for removing oxides of nitrogen from an exhaust gas of an internal combustion engine.

According to §103, in order to establish a prima facie case of obviousness, there must be (1) some suggestion or motivation to modify the references, (2) reasonable expectation of success and (3) the prior art reference must teach or suggest all of the claim limitations. See MPEP §2143. In the case at hand, Applicants respectfully assert that the cited reference does not teach or suggest all of the claim limitations and furthermore, there is no motivation to modify the reference.

(a) Introduced in parallel

Lesieur discloses a fuel gas reformer assembly for use in fuel cell power plants, including a mixing station for intermixing a relatively high molecular weight fuel and an air stream so as to form a homogeneous fuel-air-steam mixture. The shape of the mixing chamber is shown in **Lesieur**, column 4, lines 11-46. According to figure 1, tube 12

carries a vaporized fuel reactant, while tube 14 carries an oxidant/steam reactant, where the oxidant is usually air. See **Lesieur** column 14, lines 18-20. Figure 1 is shown as follows:



As it can be clearly seen in Figure 1, tubes 12 and 14 are introduced into the converter from opposite sides, wherein vaporized fuel delivered by tube 12 ends in an upper manifold 22, whereas tube 15 opens into the lower manifold 23. See **Lesieur** column 14, lines 27-29. The vaporized fuel and oxidant/steam reactant are mixed in a plurality of mixing tubes 26 extending between the upper manifold 22 to the catalyst bed 8 through the wall 9. See **Lesieur** column 14, lines 31-33. The mixing tubes 26 interconnect the fuel manifold 22 with the catalyst bed 8. See **Lesieur** column 14, lines 33-34. Figure 1 and its description in column 4 clearly show that vaporized fuel and the oxidant are introduced into the converter from contrary sides.

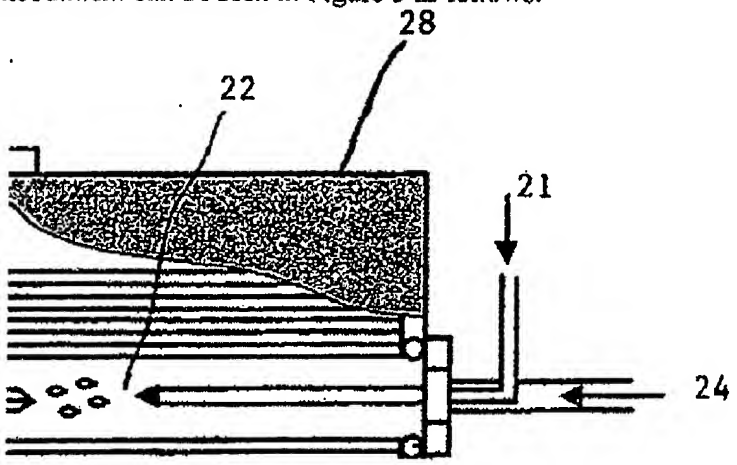
Applicants respectfully assert that in contrast to the disclosure of **Lesieur**, claim 16 recites a cylindrical recess for fuel and a feed for partial gas stream of exhaust gas and/or intake air, are introduced in parallel. Thus, the converter according to claim 16

has two inlets, one is a cylindrical recess for fuel and the second is a feed for a partial gas stream of exhaust gas and/or intake air. These two inlets are arranged in parallel.

The meaning of "in parallel" would be clear to one of ordinary skill in the art. One of ordinary skill in the art would understand "in parallel" to mean that both feeds are introduced from the same side and the flows are in the same direction.

Claim 18 further recites that the feed for a partial gas stream of exhaust gas and/or intake air are introduced on the same side of the converter

One embodiment can be seen in Figure 5 as follows:



By introducing fuel and a feed for a partial gas stream in parallel into the converter, a very fast and efficient mixing of the two gas streams can be obtained. Therefore, a substantially more homogeneous distribution of the fuel in the partial gas stream is achieved, and therefore an optimized yield of oxidation product can be obtained. See Application, page 13, lines 4-14.

Whereas **Lesieur** discloses the introduction of two gaseous compounds from completely contrary sides of the converter to achieve efficient mixing. Thus, vaporized fuel and an oxidant are introduced from opposite sides of the converter.

Therefore, **Lesieur** discloses that the two feeds have different directions of flow. As a result the two feeds are mixed by colliding. The reference does not disclose or suggest that an efficient and fast mixing is possible by introducing the two feed streams in parallel into a converter. Thus, **Lesieur** does not disclose all the elements of claim 16 and new claim 18.

(b). No motivation

Furthermore, to establish a prima facie case of obviousness, the suggestion or motivation to modify a reference must be found in the cited reference. See In re Mills, 916 F.2d 680, 16 USPQ 2d (Fed. Cir. 1990). Here, Applicants respectfully assert that no motivation to modify the converter in **Lesieur** is provided.

Claim 16 is directed to, inter alia, removing oxides of nitrogen from exhaust gases of internal combustion engines.

Contrarily, **Lesieur** is directed to the technical area of a fuel gas-steam reformer assembly for use in a fuel cell power plant. Such converters are used in fuel cell power plants in order to convert fuel gas into hydrogen and carbon dioxide. The conversion involves passing a mixture of fuel gas and steam, and, in certain applications, air/oxygen and team, through a catalytic bed which is heated to a reforming temperature that varies depending on the fuel being reformed. See **Lesieur** column 1, lines 21-28.

The cited reference does not discuss or suggest a converter or process for removing oxides of nitrogen from exhaust gases of internal combustion engines. Therefore, because the reference and the converter disclosed therein is directed to fuel cells, the reference provides no motivation for one skilled in the art to modify the device of **Lesieur** to remove oxides of nitrogen in a combustion engine.

In light of the foregoing, Applicants respectfully request that the 35 USC §103 rejection be withdrawn.

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Applicants respectfully request that any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 14.1437. Please credit any excess fees to such deposit account.

Respectfully submitted,
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